

## REMARKS

Claims 13-22, 24-60, and 63-68 are pending in the application.

By the foregoing Amendment, it is proposed to amend claims 15, 16, and 18 to make them dependent from claim 24, to amend claim 17 to make it dependent from claim 25, to amend claims 32 and 33 to make them dependent from claim 49, to amend claims 54 and 55 to make them depend from claim 43, to amend claim 56 to make it depend from claim 45, to amend claims 24, 43, and 58 to amend the phrase “and simultaneously,” to amend claim 43 to delete the phrase “a plurality of acousto-optical means for feeding the excitation light from the radiation means into the microscope optics means by diffraction of the excitation light,” and to amend claim 45 to change “radiation means is a laser” to “light sources are lasers.” It is also proposed to cancel claims 13, 14, 19, 20, 22, 28-31, 37-42, 46, 47, 50-53, 57, 63, 64, 66, and 67 without prejudice or disclaimer.

These changes are believed not to introduce new matter, and entry of the Amendment is respectfully requested.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections, and withdraw them.

### Objections to the Drawings

In paragraph 5 of the Office Action, the drawings were objected to as not showing all of the features recited in claim 43. This objection is overcome by the proposed cancellation of claim 43.

### Double Patenting

In paragraph 6 of the Office Action, it was indicated that claim 64 would be objected to as being a substantial duplicate of claim 63. This objection is overcome by the proposed cancellation of claims 63 and 64.

### Rejection under 35 U.S.C. § 112, ¶ 1

#### *1. Claims 13-22, 24-60, and 63-68*

In paragraph 8 of the Office Action, claims 13-22, 24-60, and 63-68 were rejected under section 112, first paragraph on the basis that claims 22, 24, 28, 37, 43, and 58 recite features not supported by the specification. This rejection is overcome with respect to claims 24, 43, and 58 by their proposed amendment to delete “and simultaneously”; and is overcome with respect to claims 22, 28, and 37 by their proposed cancellation.

#### *2. Claims 43-45, 48, 49, and 68*

In paragraph 9, claims 43-45, 48, 49, and 68 were rejected under section 112, first paragraph on the basis that claim 43 recites features not supported by the specification. This rejection is overcome by the proposed amendment of claim 43 to delete the feature in question. Claims 44, 45, 48, 49, and 68 depend from claim 43; thus, their rejection is overcome by the proposed amendment of claim 43.

### Rejections under 35 U.S.C. § 103

#### *1. Claims 13-16, 18-20, 22, 28-32, 37-39, 51, 54-55, 57, 63-64, and 66-67*

In paragraph 11 of the Office Action, claims 13-16, 18-20, 22, 28-32, 37-39, 51, 54-55, 57, 63-64, and 66-67 were rejected under section 103(a) as being unpatentable over Engelhardt et al. (WO99/42884). This rejection is overcome with respect to claims 13, 14, 19, 22, 28-31, 37-39, 51, 63, 64, 66, and 67 by their proposed cancellation without prejudice or disclaimer. This rejection is overcome with respect to:

- claims 15, 16, and 18 by their proposed amendment to depend from claim 24 (the rejection of which is discussed below)
- claims 32, 54, and 55 by their proposed amendment to depend from claim 43 (the rejection of which is discussed below)

#### *2. Claims 21, 33-36, and 40*

In paragraph 12, claims 21, 33-36, and 40 were rejected under section 103(a) as being unpatentable over Engelhardt et al. This rejection is overcome with respect to claim 40 by its proposed cancellation without prejudice or disclaimer. This rejection is respectfully traversed with respect to:

- claim 21 by the amendment of claim 18 (from which claim 21 depends) to depend from claim 24 (the rejection of which is discussed below)
- claim 33 by the amendment of claim 33 to depend from claim 49 (which depends from claim 43, the rejection of which is discussed below)

- claim 35 (which depends from claim 32, which in turn depends from claim 49) for the reasons discussed below with respect to the rejection of claim 43
- claim 36 (which depends from claim 35, which depends from claim 32) for the reasons discussed below with respect to the rejection of claim 43.

### 3. *Claims 41 and 42*

In paragraph 13, claims 41 and 42 were rejected under section 103(a) as being unpatentable over Engelhardt et al. This rejection is overcome by the proposed cancellation of claims 41 and 42 without prejudice or disclaimer.

### 4. *Claims 46 and 47*

In paragraph 14, claims 46 and 47 were rejected under section 103(a) as being unpatentable over Engelhardt et al. This rejection is overcome by the proposed cancellation of claims 46 and 47 without prejudice or disclaimer.

### 5. *Claims 50, 52, and 58-60*

In paragraph 15, claims 50, 52, and 58-60 were rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Asakawa (JP 01282515). This rejection is overcome with respect to claims 50 and 52 by their proposed cancellation without prejudice or disclaimer. This rejection is respectfully traversed with respect to claim 58, and claims 59 and 60 depending therefrom, as being based upon a combination of references that does not teach or suggest the claimed invention.

As already set out in the response to the Office Action of July 12, 2004, Asakawa does not teach the configuration of a plurality of acousto-optical elements on a common optical axis. Rather,

with Asakawa, each laser is provided with a separate AOM on a separate optical axis. This can be very clearly seen in the figure of Asakawa. These AOMs, however, serve only the regulation of the intensity of the respective laser and have nothing to do whatsoever with the coupling of the radiation into a common beam path. Therefore, with Asakawa, the specific advantages of the invention, in particular the coupling in of a plurality of lasers into a common beam path with a reduced number of optical components, is not possible.

In summary: A person of ordinary skill in the art would not have considered Asakawa, and even if he or she had done so, Engelhardt in combination with Asakawa would not have resulted in the claimed invention. It is therefore respectfully submitted that the invention as recited in claim 58, and the claims depending therefrom, is patentable over the prior art of record, and that the rejection should be withdrawn.

6. *Claim 56*

In paragraph 16, claim 56 was rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Asakawa. This rejection is respectfully traversed by the proposed amendment of claim 56 to depend from claim 45, which depends from claim 43, the rejection of which is discussed below.

7. *Claims 24-27 and 65*

In paragraph 17, claims 24-27 and 65 were rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Imai (JP 05080366). This rejection is respectfully traversed as being based upon a combination of references that does not teach or suggest the claimed invention.

From the Office Action, it appears that the Examiner is of the opinion that Imai teaches combining a plurality of wavelengths of different lasers by means of acousto-optical means. This, however, is not correct. Rather, Imai teaches a device with a plurality of acousto-optical means configured in series which serve the distribution -- rather than the "combination" -- of the light emerging from two light guides 20, 22 for incoming light into lightguides 21A, 21B, 21C for outgoing light.

In fundamental contrast thereto, the invention as claimed in independent claims 24 and 58 teaches that the plurality of light diffraction means, i.e. the acousto-optical means, serve to couple the excitation light of the plurality of light sources into the microscope beam path, i.e. a common optical axis.

Also, since there is no well-defined beam path with Imai, Imai does not provide any teaching whatsoever as to how the plurality of acousto-optical means have to be arranged with respect to the beam path of the microscope and with respect to the other components.

In summary: A person of ordinary skill in the art would not have considered Imai, and even if he or she had done so, Engelhardt in combination with Imai would not have resulted in the claimed invention. It is therefore respectfully submitted that the invention as recited in claim 24, and the claims depending therefrom, is patentable over the prior art of record, and that the rejection should be withdrawn.

8. *Claims 17 and 53*

In paragraph 18, claims 17 and 53 were rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Imai. This rejection is overcome with respect to claim 53 by its

proposed cancellation without prejudice or disclaimer. This rejection is traversed with respect to claim 17 for the reasons discussed above with respect to the rejection of claim 24, from which it indirectly depends.

9. *Claims 43-45, 49, and 68*

In paragraph 19, claims 43-45, 49, and 68 were rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Asakawa, further in view of Imai. This rejection is respectfully traversed as being based on a combination of references that does not teach or suggest the claimed invention, for the reasons discussed above with respect to the rejections of independent claim 24 based on Engelhardt in view of Imai and of independent claim 58 based on Engelhardt and Asakawa.

10. *Claim 48*

In paragraph 20, claim 48 was rejected under section 103(a) as being unpatentable over Engelhardt et al. in view of Asakawa, further in view of Imai. This rejection is respectfully traversed as being based on a combination of references that does not teach or suggest the claimed invention, for the reasons discussed above with respect to the rejections of independent claim 24 based on Engelhardt in view of Imai and of independent claim 58 based on Engelhardt and Asakawa.

Entry of Amendment under 37 CFR § 1.116

Entry of these amendments is believed to be in order pursuant to 37 CFR § 1.116(b), inasmuch as the amendments are made primarily either to cancel claims or comply with requirement of form expressly set forth in the outstanding Office Action. The remaining amendments merely

change the dependency of dependent claims from one of the canceled claims to one of the remaining pending claims.

### Conclusion

All objections and rejections have been complied with, properly traversed, or rendered moot. Thus, it now appears that the application is in condition for allowance. Should any questions arise, the Examiner is invited to call the undersigned representative so that this case may receive an early Notice of Allowance.

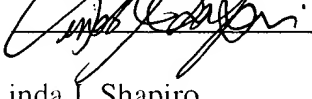
Favorable consideration and allowance are earnestly solicited.

Respectfully submitted,

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